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	Application Number	10/052,905	Ş
	Filing Date	November 2, 2001	Õ
	First Named Inventor	Schwendner, Susan, et. al.	77
	Art Unit	1614	31
	Examiner Name	Unassigned	70
	Attorney Docket Number	018781-007210US	160

U.S. PATENT DOCUMENTS						
Examiner	Cite No.1	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Wh Relevant Passages or Rele Figures Appear	ere
FV-	AA	US-1,955,207	04/17/1934	Stotter et al.	/ iguico / ippeor	
1.4	AB	US-2,358,365	09/19/1944	B.F. Tullar		
1	AC	US-2,402,623	06/25/1946	Hester, et al.	-	
\neg	AD	US-2,450,863	10/05/1948	Altamura, et al.		
1	AE	US-2,937,202	05/17/1960	Slagh, et al.		
	AF	US-3,034,955	05/19/1962	Frick, et al.		
	AG	US-3,322,828	05/30/1967	Muth, et al.		
	AH	US-3,505,455	04/07/1970	Gipstein, et al.		
	Al	US-3,951,910	04/1976	Mark		
	AJ	US-4,013,621	03/22/1977	Knell		
	AK	US-4,034,110	07/05/1977	Mitrovic, et al.		
	AL	US-4,080,379	03/21/1978	Seng, et al.		
	AM	US-4,123,553	10/31/1978	Mitrovic, et al.		
	AN	US-4,239,699	12/16/1980	MacKay, et al.		
$\neg 1$	AO	US-4,258,058	03/24/1981	Witte, et al.		
	AP	US-4,373,017	02/08/1983	Masukawa, et al.		
	AQ	US-4,443,477	04/17/1984	Witte, et al.		
V,	AR	US-4,483,986	11/20/1984	Dominianni		
	AS	US-4,692,466	09/08/1987	Yoshimoto, et al.		
W/	AT	US-4,851,445	07/25/1989	Yoshimoto, et al.	t	

	FOREIGN PATENT DOCUMENTS						
F	0.11	For	eign Patent Document		Name of Patentee or	Pages, Columns, Lines, Where Relevant	
Examiner Initials*	Cite No. ¹	Country Code ³	Number ⁴ Kind Code ⁵ (<i>if known</i>)	Publication Date MM-DD-YYYY	Applicant of Cited Document	Passages or Relevant Figures Appear	T⁰
4/2	AU	DE	3535167	04/09/1987	1		
	AV	DE	3821540	12/28/1989			
\neg	AW	DE	36 23 184 A	01/14/1988			
	AX	DE	622 494 C	11/29/1935			
	AY	GB	859 345 A	01/18/1961			
	AZ	GB	938 890 A	10/09/1963			
V	BA	GB	1 189 720 A	04/29/1970			
Kir	BB	GB	1 242 057 A	08/11/1971			

Examiner Signature	Krass	Date Considered	08/03	

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Application Number	10/052,905	<u>m</u>
Filing Date	November 2, 2001	至
First Named Inventor	Schwendner, Susan, et. al.	3
Art Unit	1614	
Examiner Name	Unassigned	<u> </u>
Attorney Docket Number	018781-007210US	=======================================

			U.S. PATENT D	OCUMENTS	2900
Examiner	Cite No.1	Document Number Number Kind Code ² (# known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
F/L	CN	US-4,870,107	09/26/1989	Yoshimoto, et al.	
1	СО	US-4,881,969	11/21/1989	Saupe, et al.	
	CP	US-4,883,914	11/19/1989	Alvarado, et al.	
	cq	US-4,900,867	02/13/1990	Wilkes, et al.	
	CR	US-4,918,106	04/17/1990	Yoshimoto, et al.	
	cs	US-5,143,937	09/01/1992	Lang, et al.	
	СТ	US-5,189,211	02/23/1993	Sato, et al.	
	CU	US-5,250,549	10/19/1993	Yoshino, et al.	
	CV	US-5,280,043	01/18/1994	Cooper, et al.	
	cw	US-5,385,931	01/31/1995	Bigg, et al.	
	CX	US-5,387,709	02/07/1995	Lardy, et al.	
	CY	US-5,610,320	03/11/1997	Yoshino, et al.	
	CZ	US-5,773,236	06/1998	Diwu, et al.	
	CAA	US-5,780,483	07/14/1998	Widdowson, et al.	
	CBB	US-5,880,151	03/09/1999	Medina, et al.	
	ccc	US-5,891,917	04/1999	Tang, et al.	
$\overline{}$	CDD	US-6,121,304	03/09/1999	Flygare, et al.	
V	CEE	US-6,214,880	04/10/2001	Houze	
14	CFF	US-6,284,923	09/04/2001	Medina, et al.	
	CGG	US-			

			FOREIGN PA	TENT DOCUME	NTS		
Examiner	iner Cite	For	eign Patent Document		Name of Patentee or	Pages, Columns, Lines, Where Relevant	
Initials*	No.1			Publication Date MM-DD-YYYY	Applicant of Cited Document	Passages or Relevant Figures Appear	T ⁶
86_	СНН	GB	1 306 564 A	02/14/1973		1	
1	CII	EP	0 472 449 A	02/26/1992		A	
	CJJ	EP	0 391 799 A	10/10/1990			
	СКК	EP	0 469 901 A	02/05/1992			
	CLL	EP	0 472 053 A	02/26/1999	•		
V,	СММ	FR	2456731A	12/12/1980			
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Application Number	10/052,905	
Filing Date	November 2, 2001	
First Named Inventor	Schwendner, Susan, et. al.	<u>m</u>
Art Unit	1614	
Examiner Name	Unassigned	20
Attorney Docket Number	018781-007210US	160
		

			U.S. PATENT D	OCUMENTS	88
		Document Number			U
Examiner	Cite No. ¹	Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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			FOREIGN PA	TENT DOCUME	NTS		
Examiner	Cite	For	eign Patent Document		Name of Patentee or	Pages, Columns, Lines, Where Relevant	
Initials*	No.1	Country Code ³ Number ⁴ Kind Code ⁵ (if known)		Publication Date MM-DD-YYYY	Applicant of Cited Document	Passages or Relevant Figures Appear	T ⁶
Fb	EHH	wo	99/67258 A	12/1999		1	
1	EII	wo	98/05315	02/15/1998			
	EJJ	wo	98/16227 A	04/1998			
	EKK	wo	98/22101 A	05/1998			
	ELL	wo	00/17159 A	3/2000			
	EMM	wo	00/35865	06/2000			
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Substitute for form 1449B/PTO Complete if Kn wn **Application Number** 10/052,905 INFORMATION DISCLOSURE Filing Date November 2, 2001 STATEMENT BY APPLICANT **First Named Inventor** Schwendner, Susan, et. al. 1614 Art Unit (use as many sheets as necessary) **Examiner Name** Unassigned Attorney Docket Number 018781-007210US Sheet of

			OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS		
Examiner Initials *		Cite No.1	include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T 2	
Fle	'	вс,	Fielding et al, "Synthesis and Reactions of 4-sulpho-2,3,5,6-Tetrafluorobenzoic Acid"; Journal of Fluorine Chemistry, Vol. 59, No. 1, pp. 15-31 (1992)		
1		BD /	Raibekas et al. "Affinity Probing of Flavin Binding Sites. 2. Identification of Reactive cysteine in the Flavin Domain of Escherichia coli DNA Photolyase"; Biochemistry, Vol. 33, No. 42, pp. 12656-12664 (1994)		
		BE,	Shealy et al. "2-Haloethylating Agents for Cancer Chemotherapy. 2-Haloethyl Sulfonates"; Journal of Medicinal Chemistry, Vol. 26, pp. 1168-1173 (August 1983)		
,		BF	Olander et al., "A Study of the binding of two sulfonamides to Carbonic Anhydrase"; Journal of American Chemical Society", Vol. 95, No. 5, pp. 1616-1621 (March 7, 1973)		
		BG	Hawkinson, et al; "Studies of the Solvolysis of 2-Adamantyl Pentafluorobenzenesulfonate: A Y _{PFBS} Scale"; <i>The Journal of Organic Chemistry</i> , August 1988, Vol. 53, No. 16, pp 3857-3860.		
		ВН	Chemical Abstracts, Vol. 50, No. 1, 10 January 1956 Columbus, Ohio, US; abstract no. 217g, V.O. Lukashevich: "Sulphonation of halogen-substituted benzene derivatives. formation of anhydrides of corresponding sulphonic acids" column 217; XP002083056 see abstract & Doklady Akad. Nauk S.S.S.R., Vol. 99, 1954, pages 995-998.		
		ВІ	Chemical Abstracts, vol. 74, no. 14, 5 April 1971, Columbus, Ohio, US; abstract no. 65535a, D. Simov, Et al.: "Preparation of azo dyes containing amobile chlorine atom in the benzene ring" page 81: XP002083055 see abstract & IZV. OTD. KHIM. NAUKI, BULG. AKAD. NAUK, vol. 3, no. 1, 1970, pages 69-82,		
		ВЈ	I.C. Poppoff, et al.: "Antimalarial agents. 8. Ring-substituted bis-(4-aminophenyl) sulphones and their precursors" <i>Journal of Medicinal Chemistry</i> , vol. 14, no. 12, December 1971, pages 1166-1169, XP002083052 Washington, DC, US see compounds V, VIII,X, XI, XIII, XVIII, XIX, XXVIII, XXXII, XXXVI-XXXVIII, XLI, XLII, XLIV, XLV.		
		вк .	G.E. Chivers, et al.: "Studies in the chemistry of polyhalogenobenzene compounds. The synthesis and reactivity of 2,3,5,6- and 2,3,4,5-tetrachlorobenzenesulphonyl chlorides and related compounds"; <i>Australian Journal of Chemistry</i> , vol. 29, no. 7, July 1976, pages 1572-1582, XP002083174, Melbourne, AU		
,		BL .	P.G. DeBenedetti, et al.; "Quantitative structure-activity analysis in dihydropteroate synghase inhibition by sulphones. Comparison with sulphanilamides" <i>Journal of Medicinal Chemistry</i> , vol. 30, no. 3, March 1987, pages 459-464. XP002083053 Washington, DC, US		
#4	レ レ	вм .	V.N. Babushkin, et al.: "Influence of substituents on the frequency of stretching vibrations of sulphur-containing bridging groups in diphenyl systems" <i>Journal of General Chemistry of the USSR</i> , Vol. 58, No. 7, pt. 2, July 1988., pages 1457-1460. XP002083054 New York, US		

Examiner		Date	15/0	
Signature	K BSS	Considered	07/03	J

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Application Number 10/052,905

Filling Date November 2, 2001

First Named Inventor Schwendner, Susan, et. al.

Art Unit 1614

Examiner Name Unassigned

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Sheet 2 of Attorney Docket Number 018781-007210US

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	,
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
FL	DC	Bai, et al.; "Identification of the cystein Residue of β-Tubulin Alkylated by the Antimitotic Agent 2,4-Dichlorobenzyl Thiocyanate, Facilitated by Separation of the Protein subunits of Tubulin by Hydrophobic column chromatography"; Biochemistry 1989, Vol. 28, pp 5606-5612.	:
\	DD	Fadeeva, V.P., et al., "Gas-chromatographic separation of sulfur-and fluorine-containing pyrolysis products", Chemical Asbstracts, 76:(5) (01/31/72)	
	DE .	Gerig et al., "Aromatic Ring Dynamics in a Carbonic Anhydrase-Inhibitor Complex", Journal of the Chemical Society Chemical Communications, No.6, pp 482-484 (1987)	
	DF	Luduena, E.F., et al. "Interaction of Ethacrynic Acid with Bovine Brain Tubulin, Biochemical Pharmacology, 47:(9) 1677-1681 (04/29/94)	
	DG (March, Advanced Organic Chemistry", 4th Edition, 1992 p. 497	
V	DH	Yoshimoto et al., "Correlation Analysis of Baker's Studies", J. Med. Chem, 19:(1) 71-98 (1976)	
FK	DI.	Taniuch et al., Chem Abstract. 82:126077, 1975.	
	DJ		
	DK		
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Examiner Signature	Krass	Date Considered	09/03	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Substitute for form 1449B/PTO

Complete if Known **Application Number** 10/052,905 Filing Date November 2, 2001 Schwendner, Susan, et al. **First Named Inventor** 1614 Art Unit **Examiner Name** Unassigned

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Attorney Docket Number 018781-007210US Sheet of

			U.S. PATENT D	OCUMENTS	
		Document Number			
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FL	AE	Medina et al., "Novel Antineoplastic Agents with Efficacy Against Multidrug Resistant Tumor Cell Lines", <i>Bioorg. Med. Chem lett.</i> , 8(9) , pp 2653-2656 (1998)							
TL	AF	Med. Chemiet	, 0(3), pp 2000		,				

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